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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,754	06/20/2005	Yasutomo Okajima	YAMAP0962US	3153
43076 7590 07/07/2009 MARK D. SARALINO (GENERAL) RENNER, OTTO, BOISSELLE & SKLAR, LLP 1621 EUCLID AVENUE, NINETEENTH FLOOR CLEVELAND, OH 44115-2191				
EXAMINER LEE, LAURA MICHELLE				
ART UNIT		PAPER NUMBER		
3724				
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07/07/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,754

Applicant(s)

OKAJIMA ET AL.

Examiner

LAURA M. LEE

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/12/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-18 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) 3, 8-18, 20-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/12/2009 has been entered.

Claim Objections

2. Claim 1 is objected to because of the following informalities:

Claim 1, last line of the amended portion, "substrate" should be --substrate--.

Claim 1, line 22, it appears that applicant may have unintentionally removed the previous amended that recited "and moves perpendicularly relative to a surface of the first substrate to apply pressure against the surface of the first substrate"

. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

5. Claims 1, 4-7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al. (WO 02/057192), herein referred to as Ueyama in view of Masakazu (JP 10-338534). As WO 02/057192 is in Japanese, see U.S. Patent 7,131,562 for referenced paragraphs. Ueyama discloses a cutting system capable of cutting a bonded brittle material (crystal mother panels, 8) formed by bonding a first brittle material (10a) and a second brittle material (10b) into a plurality of cut substrates (see Figures 4-7), the system for cutting a substrate of the bonded substrate comprising:

a cutting apparatus (4B; Figure 18) comprising:

a first cutting device (upper scribing portion 42/ 51/R; see Figures 18 and 19) located so as to face the first substrate (10a),

and a second cutting device (lower scribing portion 43/ 51/R; see Figures 18 and 19) located on the opposite side of the bonded brittle material substrate relative to the first cutting device so as to face the second substrate (10b) and to oppose the first cutting device in a direction perpendicular to first and second respective sides of the substrates; wherein the first cutting device comprises a scribing portion (43) in which first scribing means applied pressure on the first substrate to form a scribing line on the first substrate(10a)(see embodiment 2 under col. 12; especially col. 13, lines 5-30 and col. 14, lines 19-35).

the second cutting device comprises a scribing portion (43) in which second scribing means applied pressure on the second substrate to form a scribing line on the second substrate (see col. 13, lines 5-30 and col. 14, lines 19-35)

the first cutting device(upper scribing portion 42/ 51/R; see Figures 18 and 19) further comprises a first back up portion (roller, R) which faces the second scribing means (43), the first back up portion (roller, R) being located on the opposite side of the bonded brittle material substrate relative to the second scribing means (43) and is aligned with the second scribing means in a direction perpendicular to the surface of the first substrate being scribed and moves to apply pressure against a surface of the first substrate when the second scribing means of the scribing portion of the second cutting device scribes the second substrate, in correspondence with the portion to be scribed, , and

the second cutting device lower scribing portion 43/ 51/R; see Figures 18 and 19) comprises a second back up portion(roller, R) which faces the first scribing means (42), the second back up portion (R) being located on the opposite side of the bonded brittle material substrate relative to the first scribing means and is aligned with the first scribing means in a direction perpendicular to the surface of the first substrate and moves perpendicularly (via cylinder, 53) relative to a surface of the second substrate to apply pressure against the surface of the second substrate when the first scribing means (42) of the scribing portion of the first cutting device scribes the first substrate, in correspondence with the portion to be scribed.

Ueyama discloses a breaking portion (roller, R top) for breaking the first substrate by applying pressures against the first substrate along the scribing line formed on the first substrate and a breaking portion (roller R, bottom) for breaking the second substrates by applying pressure against the second substrate along the scribing line formed on the second substrate. However, Ueyama's rollers R serve both purposes of a back up portion and also a breaking portion, operating twice to singularly serve both functions; Ueyama does not disclose the claim limitations of having two separate portions for performing these two operations (see col. 14, lines 36-54). However, attention is also directed to the Masakazu reference that discloses a similar glass cutting device. Masakazu also discloses a means of cutting that employs a scribing means (43), a back up portion (42) and a breaking portion (50) that are each utilized in a singular pass of the cutting device. Masakazu discloses that the back up portion and breaking portion are two separate portions rather than being performed by a single apparatus as is disclosed by Ueyama. It would have been obvious to one having ordinary skill in the art at the time of the invention to have provided second rollers on the Ueyama cutting devices as breaking portions instead of utilizing the singular roller twice to perform both supporting and breaking functions as shown by Masakazu so that the Ueyama cutting devices don't require a second pass to both scribe and break the workpiece reducing the time and movements involved in the cutting/breaking process.

In regards to claim 4, the modified device of Ueyama discloses a substrate carrying apparatus (suction transfer mechanism, 2b and tables 19, 5b and 6b; Figure

17) which is capable of sequentially positions lines to be cut of the bonded substrate with respect to the cutting device (4B).

In regards to claim 5, the modified device of Ueyama discloses wherein the substrate carrying apparatus (2B,19, 5b, 6b) comprises a plurality of tables (tables, 19, 5b and 6b).

In regards to claim 6, the modified device of Ueyama discloses wherein the tables (19,5b,6b) are independently movable (i.e. the upstream table 5B and the downstream table 6B can be moved in a horizontal direction indicated by an arrow 7 see col. 12 lines 39-41 or alternatively movably removable).

6. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

7. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al. (WO 02/057192), herein referred to as Ueyama in view of Masakazu (JP 10-338534) and in further view of Shigeyuki et al (JP 2001-261357). The modified device of Ueyama does not disclose that the tables comprise adsorption holes for adsorbing the bonded substrate. However, attention is alternatively directed to the Shigeyuki device that discloses sheet glass apparatus with a glass-cutting and breaking machine, 14, with an absorption transfer device, 12. Shigeyuki discloses that the absorption holes in the transfer device aids in the movement of the workpiece from

workstation to workstation without needing to manually manipulate the workpiece and to improve the efficiency of working with the workpiece. It similarly would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated absorption holes in the table surface of Ueyama as taught by Shigeyuki to aid the movement the workpiece during the cutting process. Therefore, the modified device of Ueyama discloses wherein the tables comprise adsorption holes for adsorbing the bonded substrate (Shigeyuki: absorption transfer device,12; connected to suction pump; not illustrated; paragraph [0013]).

8. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Response to Arguments

9. Applicant's arguments with respect to claims 1, 4-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. LEE whose telephone number is (571)272-8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura M Lee/
Examiner, Art Unit 3724
07/05/2009